

**ABSTRACT**

A mammographic method and apparatus are provided for obtaining improved compression of posterior, middle and anterior breast tissue without pushing  
5 posterior breast tissue from the imaging volume and with less discomfiture to the patient. An initial compression of the posterior tissue is achieved by vertical, relative displacement of the paddle relative to the bucky assembly to compress the posterior breast tissue therebetween.  
10 Less patient discomfiture is achieved by using an inclined compression surface on the paddle or bucky assembly to compress the anterior and middle breast sufficiently for good X-ray imaging without further displacement of the skin adjacent the chest wall. A  
15 horizontal force component inclined force will not push the posterior compressed breast tissue from the imaging area. Herein a paddle may have a posterior breast section and have a flexed section which is biased to engage and conform to the breast shape. The flexed  
20 section may be releasably held by a lock and then released to apply compression forces to the middle and anterior breast. The flexed section is guided to remain level and to uniformly compress breasts which are not centered thereunder and without binding. The buckey  
25 assembly may have a hinged inclined section to compress the middle and anterior portions of the breast. The entire bucky assembly may be hinged to raise the image detector thereon and thereby lessen the heel effect. Alternatively, the bucky cover may be hinged to swing  
30 upwardly into an inclined position to compress the middle and anterior breast portions while the image detector is not.